

# HAMPTON TRACTS

FOR THE PEOPLE

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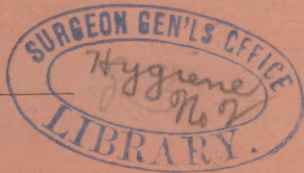
SANITARY SERIES . . . . . No. III.

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## Preventable Diseases



By MRS. M. F. ARMSTRONG



NEW YORK

*Published for the Hampton Tract Committee*

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182 FIFTH AVENUE

1879

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SANITARY SERIES

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No. III.

## PREVENTABLE DISEASES,

By Mrs. M. F. ARMSTRONG.

"No sanitary improvement worth the name will be effected whatever Acts you pass, or whatever powers you confer upon public officers, unless you can create a real and intelligent interest in the matter among the people at large."

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—Lord Derby.

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## PREVENTABLE DISEASES.

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In an address, delivered shortly before his death, by the Rev. Charles Kingsley, to an audience composed largely of women, he said, after an earnest appeal in behalf of the neglected children in whose cause he was speaking,

“ Lord Shaftesbury told you just now that there were 100,000 preventable deaths in England every year. So it is—we talk of the loss of human life in war—we are the fools of smoke and noise; because there are cannon balls and gunpowder and red coats, and because it costs a great deal of money and makes a great deal of noise in the papers, we think, What so terrible as war! I will tell you what is ten times and ten thousand times more terrible than war, and that is—outraged nature. \* \*

\* \* \* Nature, insidious, inexpensive, silent, sends no war of cannon, no glitter of arms to do her work. \*

\* \* \* \* Silently, I say, and insidiously, she goes forth; no—she does not even go forth, she does not step out of her path, but quietly, by the very same laws by which she makes alive, she puts to death. By the very same laws by which every blade of grass grows, and every insect springs to life in the sunbeam, she kills and



kills and kills, and is never tired of killing till she has taught man the terrible lesson he is so slow to learn, that Nature is only conquered by obeying her." Mr. Kingsley was an Englishman and he was speaking to English people, but this loss of life, and worse still these lives which drag on through years of helpless suffering, are just as common in America as in England. There are just as many preventable deaths, just as much needless ill-health in America as in any country in the world; indeed, it is sometimes said that our standard of health is below the average, and the terrible fact stares us in the face that every man and woman among us is directly responsible for this. Every woman who reads this, I may almost say, every woman in the United States can, if she likes, save in the next six months, three or four human lives. And it is not only true that this need cost but little time or money, but also that it will in the end be a direct saving of both

Nothing costs more than illness—the doctor's bills, the nursing, the little necessary luxuries, the loss of the patient's time, all are expensive, and if we confined ourselves to figures alone, it would be easy to show that to invest money, or thought, or labor in anything which prevents illness, is the soundest economy. In these latter days we have begun to find out that a large proportion of our physical suffering is simply a direct punishment for sin. There is, for example, a large class of diseases which are known to physicians as "bad-air diseases," that is, diseases which are directly caused by bad air, and which are never caused by anything else. Now, it is hardly ever necessary for anybody to habitually breathe impure air, and those who do so have usually only themselves to blame for the result.

The first step in the right direction is to understand

what makes air impure, the second is to learn how to get rid of or prevent this impurity, while the final effort should be to arrange our houses, our work rooms, our churches, in short, all buildings in which human beings live, so that the air within them can always be kept free from everything which is likely to produce or foster illness of any kind. Of course, there are many forms of diseases of which bad air is not the immediate cause, but there is no kind of illness which is not aggravated by a want of fresh air, while it is undoubtedly the cause, directly and indirectly, of a majority of the diseases of civilized life.

Therefore, in writing of preventable illness, I put the bad air diseases, or what is practically the same thing, the diseases which are caused by a want of fresh air, first upon the list, and shall try to give you such a horror of the dirt and filth which make bad air, and of the ignorance which shuts out fresh air, that however poor, you are, however small your house, or crowded the neighborhood in which you live, you will still try by all the means in your power to be clean yourself and to make the people about you, clean too.

Now everything which is thrown out from the human body is unclean, and becomes at once dangerous to human life. It should never be forgotten that we are constantly poisoning the air about us in a variety of ways, and that it requires constant care to get rid of these various poisons. The breath which we send back from our lungs, has been used and exhausted and has become a poison to all living beings. The pores of the skin are continually giving out moisture, which passes into the air, where you may often recognize its presence by the unpleasant smell which you must have noticed about people who are not in the habit of washing frequently.

All the excretions from our bodies, everything which is thrown off as waste matter, that is, as matter which is no longer of use to the body, is, or quickly becomes poisonous; and this sort of poison is spread more quickly by the air than in any other way. We may and do take such poison into our systems in the water we drink or even in the food we eat, and some fevers, cholera and dysenteric diseases are frequently spread in this way, but the air is, in the main, the chief source of danger, and without pure air, health is impossible.

Many great men have, of late, devoted themselves to studying the causes of diseases, and they have almost beyond question, established the fact that all contagious diseases, that is all diseases which can be taken by contact with the sick person, or carried in clothing, or left in bedding, furniture, etc., are caused by germs, that is infinitesimally small living organisms which are thrown off from the body of the sick person. They are found in the breath from the lungs and in the secretions and excretions of the body; in fact, the whole atmosphere surrounding a person who is ill with what we call a contagious disease, as for example, scarlet fever, diphtheria, or measles, is full of these germs which possess the power of multiplying themselves with inconceivable rapidity. Now, it seems to me, that as soon as this is understood, the first impulse of every reasonable person, will be to get rid of these poisonous organisms, to kill them and cleanse the air from their dangerous presence. And yet, it is a painful fact that very few people are willing to take the proper precautions, to do what is necessary, to follow the direction of physicians or other competent authorities in regard to treatment of contagious illnesses.

We are told, and in some of the large cities it has already been proven, that by a careful and intelligent sys-



tem, epidemics may be stamped out, or at least may be kept in check and prevented from spreading beyond the locality in which they break out.

When, for example, a case of yellow fever or cholera is discovered, (and such a case should be promptly reported to the nearest physician or health-officer,) the patient is if possible, removed at once to a hospital, or if there is no hospital near at hand, to some building or part of a building where he can be properly cared for and kept in strict quarantine. The house in which he was taken ill is cleaned and thoroughly disinfected, that is, carbolic acid, chloride of lime and other substances which have the power of destroying the life of the disease-germs, are sprinkled freely through the house, walls are white-washed, carpets taken up and floors scrubbed, bedding and clothing of the patient are washed carefully or burned in short, everything which is likely to hold the contagion is removed, and all that is left is made as clean as soap and water and disinfectants can make it. In houses where there were several cases of fever or diphtheria, I have known the authorities to order the wall-paper to be torn down and very often the sewer pipes are taken up, and the cesspools and drains closed or entirely altered.

It is better on all accounts to take the patient to a hospital, but in case this for one or another reason cannot be done, he should be separated as much as possible from every one except those who have the care of him, and they should use every precaution in going back and forth between the sick-room and the rest of the house.

The sick-room and the patient himself should be kept thoroughly clean, the attendants should see that the air is kept fresh and that plenty of clean water is used, while any vessel used by the patient should have a small quantity of chloride of lime, carbolic acid or some other

disinfectant kept in it, and after use should be immediately emptied.

It is of great importance that everything which passes from the bowels of the patient, all water used in washing him, the urine, all expectorated matter etc., should be so disposed of, that they cannot affect the air of the house, and in washing the bed and body-linen or anything which has been used about the patient, great care should be taken that nothing else is washed at the same time or in the same water or tub. This applies also to everything used in feeding or giving medicine, in short, to every thing which is used in and comes out of the sick-room. In case of death the funeral should be as speedy and as private as possible, while from the moment that it is known that the disease is contagious until the patient dies or completely recovers, there should be no communication between him and any one except his nurses. The practice of running in to visit such patients is on all accounts objectionable and should never be allowed by intelligent people. It is not only bad for the patient but is a very common way of spreading the disease. By a little care and decision all this communication can be put a stop to, and by so doing, we close one important channel for the spread of contagion. This care should include not only the incoming of strangers into the household but also the outgoing of members of the household, who should quarantine themselves as much as possible.

I have known working-people who were willing to take the trouble of keeping a suit of clothes in some out-house or similar place, at a distance from the sick-room, where they would change all their outside clothes, when they went to work in the morning and again when they returned in the evening, so that there should be as little risk as possible of giving the disease from which some

member of their own family was suffering, to any of their fellow workmen. And I have known a family in which two of the children were ill with scarlet fever while the third, a baby, was still nursing and was entirely dependent upon its mother. It was certainly difficult to know what to do, but the mother, being an intelligent and conscientious woman, solved the difficulty and probably saved her baby's life. She got a woman to come in and take care of the baby and the house, while she herself, took the two sick children up stairs, allowing no one to go into the sick-room but herself. When it was time to nurse the baby, perhaps three times a day, she would go into an adjoining room, change all her clothes, sponge her whole body with water and soap, and then, dressed in clothes which had never been in the sick room, she would go down and nurse her baby. Of course this would be done only in the case of very contagious diseases, but if more of us were willing to take such precautions there would be fewer deaths from scarlet fever and diphtheria, and an intelligent following out of such a system would certainly be of immense benefit to the human race.

It is also of very great importance that children from an infected house should be kept away from school for several weeks, or until the doctor in attendance pronounces that there is no further danger of contagion, and parents who are not utterly selfish will keep them so far as possible, away from other children. All this of course, sounds very difficult, and I do not mean to tell you that it is anything else, but what I do want you to believe is, that however hard it may be, it is worth doing, because—and you cannot think too seriously of this—it is left for us to choose whether we will go on suffering and letting our children suffer from all this ter-

rible train of contagious diseases, or whether we will, by care, and patience, and intelligence, crush out the poisonous forces and prevent these illnesses which we all so greatly dread. Now, if we choose the latter course, the first thing to do is, as I have said before, to learn what the evil is which we are going to fight, and one of the discoveries which startle us at the outset of our undertaking is, that we are in danger not on one side only, but on many sides.

For example, we have found that a large proportion of preventable diseases are directly contagious, that is, are taken by one person through contact with another, and are spread, so far as we now know, only when the germs of disease thrown off by one person are taken into the system of another. But when we come to look further, we find another large class of diseases which take their rise in uncleanness or neglect in regard to the surroundings of human dwellings, drains, cess-pools, privies or water-closets, pig-sties, barn-yards, etc.

All these are receptacles for animal matter in a state of decomposition, and some of the gases which are given out during this process of decomposition are exceedingly injurious if inhaled, to any extent, by human beings. Air which is made impure by the presence of these gases cannot be, at any time, wholesome for people to breathe, while in certain states of the atmosphere, or of the human system, they assist directly in producing dysentery, diphtheria, etc. These and other diseases owe their contagious properties to the organic germs of which I have already spoken, and these germs develop much more rapidly in air which is poisoned by the presence of sewer-gas, or any gas which is the product of decaying animal matter. Besides which, no human being or animal, can breathe such air for any length



of time without being injured by it ; that is, the general tone of the system will be lowered, and both men and animals become more likely to take contagious diseases when the germs of such disease reach them. It is only fair to say that we do not yet fully understand the relations between impure air or water, and disease, but we know enough of the conditions which cause the latter, to fill thoughtful people with a very great horror of all uncleanness. To keep our houses and everything about them clean, is absolutely essential if we wish to be well ourselves and to have healthy children ; and to do this, a good deal of intelligent work is required. If you live in a city where you have a water supply, you should always take care that the pipes are in perfect order and properly trapped, and wherever there are stationary basins or sinks, you should watch them closely for any unpleasant smell from the drain pipes. Even when there is no such smell the stopper should always be kept in, and it is well to leave a little water in the basins, especially at night, for this prevents, to some extent at least, the foul gases from rising into the rooms and poisoning the dwellers in them. Water-closets in particular, should be kept in thorough order, should be ventilated as thoroughly as possible, and purified by the use, as often as once a week, of some good disinfectant. In the country, where the arrangements of a house are entirely under the control of its owner, the barn yard, pig-sty, privy, etc., should not be too near the house, and should be cleaned regularly and thoroughly, the contents being disposed of, if possible, for manure, as for that purpose they are always of value. As soon as the smell from any one of these places can be noticed in the house, you may be sure there is danger, and when you have once made a beginning in

cleaning them regularly, you will not find it so hard as it seems at first. Within the house the first thing to be attended to, is that which is strictly at the foundation, that is, the cellar. This should have a cement floor (which is not expensive) and should be kept perfectly clean—no decaying vegetables or refuse of any kind should be kept in it; the walls should be whitewashed once a year; in short, the cellar should contain nothing which can poison the air of the rest of the house, for it should never be forgotten that the air of the cellar is sure, sooner or later, to become the air of the sitting-room and bed-room.

Then as to the living rooms: I do not think I can say much that you do not already know, and which I need not say at all, if you would only put your knowledge into practice. \*Soap and water should be used with a free hand, holes and corners should be swept out with a will, slops emptied always once a day, beds shaken up and aired, and above all, everywhere and always, plenty of fresh air. Don't be afraid to open your window by night or day, and remember that if the climate is so severe or your rooms so small that you can't keep your windows open, there are various simple contrivances which will enable you to get a steady supply of fresh air without the danger of drafts. For example, raise the lower sash a few inches, and fill up the space at the bottom with a stout board that fits it closely: air will then enter through the space in the middle of the window, and be directed up to the ceiling. Or, you can make blinds which will act as ventilators, that is, a

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\*Receipt for a good cheap soap: 6 pounds common yellow soap: 2 pounds washing soda; 2 oz. borax; 10 quarts water; put it on the stove and keep it hot, (not boiling) until the soap is thoroughly dissolved.

piece of stout cloth can be stretched tightly across the window by hooks or on a light iron frame, close to the sash below, but sloping inwards at the top, so that when the window is partly opened, the air will be thrown up to the ceiling. Or again, you can bore through the sash, five or six augur holes, through which air can freely enter, taking care that they slant downwards from the inside, so that even in a driving storm rain cannot enter, and, if you choose, make corks to fit each hole so that you can close them when desirable.

Once more I can fancy that are you saying to your selves, "This is a great deal of trouble to take for a small matter," and I should be very thankful if I could feel sure that you won't at once dismiss the whole subject from your minds—and yet I think that it must be easy for you to see that the reason for taking all this trouble about drains, and sewers, and cellars, and pig-sties and ventilation, is, that it is only in this way that you can secure the necessary supply of fresh air, and I think you must begin to see that without this supply of fresh air, you run the risk of having fevers, dysenteries, and various other acute and sudden illnesses which are caused or fostered by the poison germs thrown off by organic matter in a state of decay.

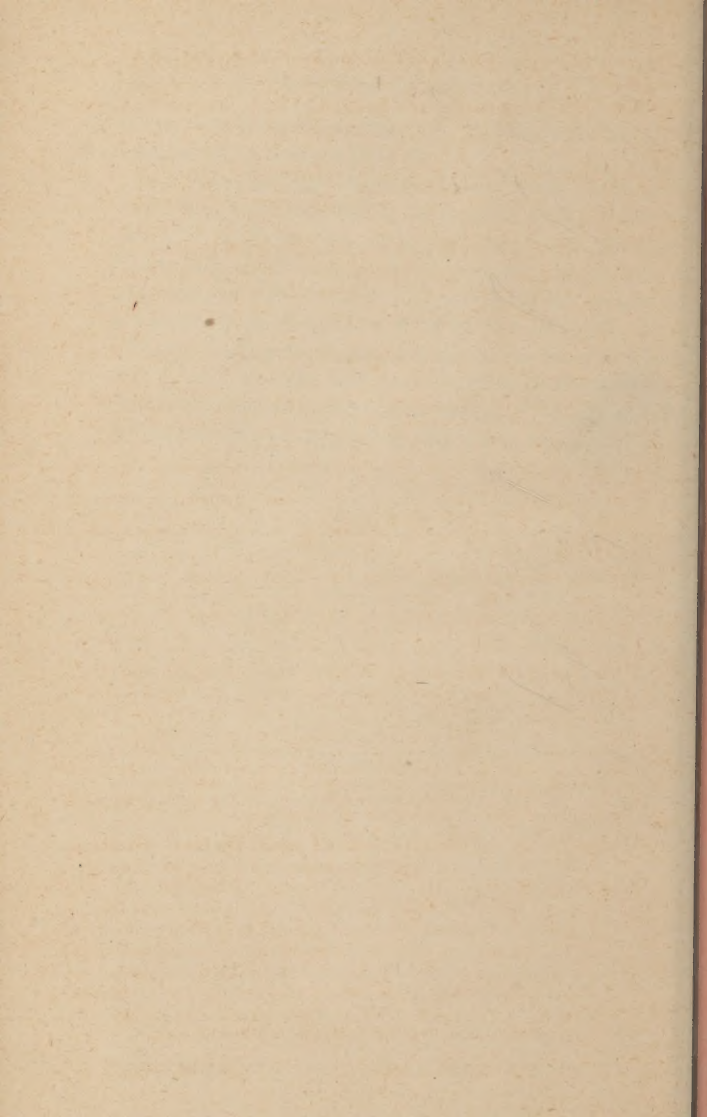
I wish I could write in letters of fire, the great truth that no human being can be strong and healthy, able to do his or her work well and cheerfully, or able to enjoy life, without a full supply of pure air. It is not only that the diseases which I have already mentioned are caused and fostered by impure air, but that the whole system is enfeebled by it, and therefore falls an easy prey to any and all disease. Consumption, that fatal scourge of our people, is often produced, and always aggravated by bad air, and it is hardly possible to say enough to

people who have weak lungs, or throats, as to the vital importance to them of pure air.

Don't live in dirty rooms or houses; don't sleep with closed windows and doors, in unaired beds; don't be afraid of Nature's best food and medicine, pure air. I have told you already, and tell you once again, that it will cost you some trouble, and perhaps some money to get it, but it is money and trouble well invested, for it will save paying for drugs, and doctor's bills, and better still, it will save you and your children from suffering, from weakness, and often from death. Will you not try for yourselves and prove that this is true?







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## HAMPTON TRACTS.

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*Editing Committee.* { Mrs. M. F. ARMSTRONG, N. Y. City.  
Miss HELEN W. LUDLOW, Hampton.  
STEPHEN SMITH, M.D., N. Y. City.  
S. C. ARMSTRONG, Hampton.

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At a meeting of the Executive Committee of the American Social Science Association, held June 8th, 1878, Prof. Pierce in the chair, it was unanimously voted, as follows :

*Resolved*, That the American Social Science Association learns with pleasure of the work undertaken at Hampton, in Virginia, to spread among the people of Virginia, and of the South in general, a knowledge of Sanitary Science popularly set forth ; and that from an examination of the three Sanitary Tracts of the proposed series, viz.: *The Health Laws of Moses, The Duty of Teachers, and Preventable Diseases*, the Executive Committee of this Association is persuaded that the important work, thus undertaken, will be well performed. We would therefore commend these Tracts to all readers, at the North as well as at the South, and would recommend their wide distribution in the way best suited to promote the circulation of them.

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Price, per Number, 8 cents ; per 100, \$5.00. per. 1000 \$40.00

Now Ready :—No. 1, Health Laws of Moses : No. 2, Duty of Teachers ; No. 3, Preventable Diseases ; No. 4, Who Found Jamie ? ; No. 5, A Haunted House.